CREST Status Report - September 22, 1999

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Activity: Consolidated Reporting of EarthquakeS and Tsunamis (CREST)

1) **Warning Centers:** Further work was performed at PTWC to address a faulty implementation of a 16-bit A/D card. It was replaced with a 12-bit card and all appears to be well. PTWC is working to integrate CREST data into their network, but most of our work is essentially complete. We will support as requested.

2) **Seismic Network instrumentation:** Installations of seismic instrumentation are proceeding as follows:

AEIC: Problems were discovered with the Guralp data loggers, and they were returned to the manufacturer for repairs. Site installations are awaiting delivery of repaired equipment, but estimated delivery time repeatedly slips. All other equipment is in house for installation of 8 sites (i.e., broadband sensors, accelerometers, site equipment, etc.). Contacts have been made for siting at most sites, but installation may be delayed until spring due to weather considerations unless equipment arrives soon.

ATWC: Installation of Shemya and Sitka were completed. Sand Point is being scheduled for next year.

NCSN: Software to interface Earthworm to Reftek data loggers was tested and installed in Menlo Park. Installation of Horse Mountain and Cahto Peak sites were completed. Mount Pierce is scheduled for November. Equipment is in house for 5 more sites and they will be installed as weather, time permits over the winter.

HVO: Equipment and software were delivered March 1999. Installation for 3 sites is scheduled for November 1999.

PNSN: Rainey Wells and Green Mountain were installed with Reftek data loggers. Site on Olympic Peninsula is being planned. Upgrade of site at Oregon State (RAI) is being considered. Equipment is in house for installation of 7 other sites.

UO: Upgrade of two existing sites operated by University of Oregon is planned for November. CTS computer is nearly ready for installation at University of Oregon.

UCB: Quanterra data logger was delivered for jointly operated site at Cahto. Anticipated instal-lation date is unknown.

3) **Communications**: We made a site visit in August to ascertain why the dedicated 128Kb data line from HVO to PTWC was not functioning. We discovered that Hawaiian Telephone brought up a type of data service to Volcano National Park Headquarters demarcation that was incompatible with the microwave system that brings the signal to HVO. The Park Service is working with us to reconfigure the microwave system and we expect the signal to come up in October or November.

4) **Algorithms**: Peak ground motion parameter generation code is now functional.

ShakeMap implementation is nearly complete.

ML magnitude computation is in prototype phase. Next phase is the calibration against other magnitudes to develop site corrections.

Moment tensor code is nearing completion. Code has been repackaged by UCB to avoid copyright issues. Package will require use Unix shell scripts and SAC, but intention is to integrate code into

Earthworm real-time environment. Draft user documentation is in works. Initial product is scheduled to be delivered by the end of October.